UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,726	03/06/2006	Damien Galand	Q92737	9646

23373 7590 06/12/2008

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
HUSSAIN, IMAD	
ART UNIT	**PAPER NUMBER**
2151	

MAIL DATE	DELIVERY MODE
06/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/564,726	GALAND ET AL.	
	Examiner	Art Unit	
	IMAD HUSSAIN	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☒ Claim(s) *15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *17 January 2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. Applicant's amendment dated 28 March 2008 has been received and made of record.

2. Claim 16 has been cancelled. Claims 1-15 have been amended and are pending.

3. The amendment to the specification obviates previously raised specification objections. As such, these objections are hereby withdrawn.

4. The amendment to the claims obviates previously raised claim objections except as described below. As such, these objections are hereby withdrawn.

5. The cancellation of claim 16 obviates previously raised 35 U.S.C. 101 rejection. As such, this rejection is hereby withdrawn.

6. Applicant's explanation of claim 1 limitations obviates previously raised 35 U.S.C. 112 rejection. As such, this rejection is hereby withdrawn.

Allowable Subject Matter

7. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 28 March 2008 have been fully considered but they are not persuasive.

Applicant argues that Jindal does not teach or suggest reporting to the communication equipment that are situated not only in portions of said network that have service selection means but also in those that have none.

In response to Applicant's argument, Examiner notes that the Instant Application states that "service selection means" may be exemplified by a DNS [Instant Application: Paragraph 0045].

The Instant Application also states that "an IP network N includes non-managed network portions which may or may not be equipped with service selection means such as a DNS" [Instant Application: Paragraph 0045]. The Instant Application provides an example differentiating between portions of a "mixed type network" as those comprising equipment using IPv4, equipment using IPv6, and equipment using both [Instant Application: Paragraph 0039]. Clearly, the referenced "network portions" are part of the larger network.

Similarly, Jindal teaches a larger network [Jindal: Figure 1 in its entirety] that is comprised of "portions of said network that have service selection means" [Jindal: e.g., the subnetwork of DNS Server 100 (the *service selection means*) and at least one of network clients 120 or servers 110, 112, 114; or, alternatively, the DNS server 100 by itself] and of "portions of said network that do not have service selection means" [Jindal: e.g., the subnetwork of the remaining network clients 120 or servers 110, 112, 114, not including the DNS server 100 (the *service selection means*)].

While Jindal does not explicitly state that the example portions of network are indeed "network portions", the description provided of "network portions" in the Instant

Application makes it clear that Jindal's portions of the network map to Applicant's claimed invention. Additionally, Jindal states that a message or a query may be returned (*reported*) to a requester (*communication equipment* such as any of the clients 120) [Jindal: Column 5 Lines 45-47], as does Examiner's base reference of Primak [Primak: Paragraph 0019].

Claim Objections

9. Claim 6 is objected to because of the following informality: the term "said addresses" lacks antecedent basis. An address is mentioned in claim 2, but claim 6 as written depends only on claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1, 9, 11-12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leonard Primak (US 2002/0095488 A1, hereafter Primak) in view of Jindal et al (US 6092178, hereafter Jindal).

Regarding claim 1, Primak teaches a *method of managing services offered by communication equipment of an Internet Protocol communication network* [Paragraph 5 Lines 6-9], *wherein the method comprising: reporting* [Primak: Paragraph 11 Lines 1-4]

to communication equipment [Primak: e.g. "any application program", Paragraph 8 Lines 4-8 and "local client", Paragraph 18 Line 4] *services offered by the communication equipment* [Primak: Paragraph 18 Lines 11-14].

Primak does not explicitly disclose that the communications equipment is *situated in portions of said network that have service selection means and in portions of said network that have no service selection means* and that the services are offered by the communications equipment *that belongs to said network portions that do not have service selection means.*

However, Jindal discloses a network topology with communications equipment (clients 120 and DNS server 100 of Fig. 1) situated in a portion of a network that has service selection means [Jindal: serving as service selection means] and communications equipment (110, 112, 114 of Fig. 1) situated in a portion of said network that has no server selection means [Jindal: serving as no selection service means] wherein services are offered by communications equipment that belongs to said network portion that does not have service selection means [Jindal: servers (110, 112, 114) **not** including DNS server (100), Figure 1].

Primak and Jindal are analogous art in the same field of endeavor as both cover directories for network services.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to utilize the network topology of Jindal for arranging computers on a network in the system of Primak. One of ordinary skill in the art would have been motivated to modify the system of Primak with the network topology of Jindal because in doing so, the system would allow for load-balancing of services [Jindal: Abstract].

Regarding claim 9, Primak and Jindal teach *communication equipment* [Primak: "any application program", Paragraph 8 Lines 4-8] *for an Internet Protocol communication network* [Primak: Paragraph 5 Lines 6-9], *said communication equipment comprises*

management means [Primak: "dynamic directory", Paragraph 11] *adapted,*

firstly, in the event of receiving address data representing an address of another equipment belonging to a portion of said network that has no service selection means and offers a service and service data representing said offered service, to store said received address data in a memory in corresponding relationship to said service data received conjointly [Primak: "each local client connected to the network has a local copy of the dynamic directory which maps the service names to a list of IP addresses of service providers", Paragraph 18 Lines 1-8], *and,*

secondly, in the event of a request to access a selected service, to determine in said memory the address data representing the address of the equipment that offers said designated service, in order to set up a connection therewith [Primak: "the local client finds a network service by querying its local copy of the dynamic directory for a service name", Paragraph 20 Lines 1-8].

Regarding claim 11, Primak and Jindal teach that *the communication equipment is selected from a group comprising at least servers* [Primak: "participants", Paragraph 18 Lines 1-4; Jindal: servers (110, 112, 114), Figure 1] *and communications terminals* [Primak: "local clients", Paragraph 18 Lines 1-4; Jindal: clients (120), Figure 1].

Regarding claim 12, Primak and Jindal teach *Service equipment offering at least one service* [Jindal: server (110), Figure 1] *and belonging to a portion of an Internet Protocol communication network that has no service selection means* [Jindal: servers (110, 112, 114) **not** including DNS server (100), Figure 1], *wherein said service equipment comprises sender means* ("the application program" [Primak: Paragraph 18] sending over a "reliable multicast protocol" "via the associated UDP port" [Primak: Paragraph 24 Lines 1-4] on a "presently available communication apparatus" [Primak: Paragraph 16]) *adapted to broadcast messages* [Primak: Paragraph 24 Lines 1-4] *containing address data representing their own address* [Primak: Paragraph 19 Lines 5-7] *and service data representing said service offered* [Primak: "service name", Paragraph 19 Lines 5-7] *in said network to communication equipment according to claim 9.*

Regarding claim 16, the claim comprises the same limitations as claims 9 and 12. The same rationale for rejection is applicable.

12. Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Primak and Jindal as applied to claims 1 and 12 above further in view of Hideshi Sakurai et al (US 6,965,599, hereafter Sakurai).

Regarding claim 2, Primak and Jindal do not explicitly disclose *that service data representing that service is integrated into the address of said communication equipment offering a service.*

However, Sakurai teaches a method of "classifying send packets to be relayed to said IP network, depending on the types of applications [*service*], to allocate a different virtual IP address to each class" [Sakurai: Claim 10]. (Thereby a representation of the offered service is integrated into the assigned virtual IP address).

Primak, Jindal and Sakurai are analogous art in the same field of endeavor as all cover network access of services.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to utilize the IP allocation method of Sakurai for service classification in the system of Primak and Jindal. One of ordinary skill in the art would have been motivated to modify the system of Primak and Jindal with the IP allocation method of Sakurai because in doing so, the system would allow for a decrease in system costs by lowering the number of required packet relay apparatus [Sakurai: Column 1 Line 62-Column 2 Line 7].

Regarding claim 13, the claim comprises the limitations of claims 12 and 2. The same rationale for rejection is applicable.

13. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Primak, Jindal and Sakurai as applied to claim 2 above further in view of Sumandra Majee et al (*IPv6 extension to RPC*, hereafter Majee).

Regarding claim 3, Primak, Jindal and Sakurai teach *that said addresses containing the service data* [Sakurai: Claim 10] *are stored at least in said communication equipment* [Primak: Paragraph 18 Lines 1-8] *using said network layer protocol version* [Sakurai: "IP", Claim 10].

Primak, Jindal and Sakurai do not explicitly disclose that multiple network layer protocol versions are used.

However, Majee teaches that a client can work with both versions 4 and 6 of the Internet Protocol (IPv4, IPv6) [Majee: Page 4 Section 4].

Primak, Jindal, Sakurai and Majee are analogous art in the same field of endeavor as all cover network access of services.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to utilize the dual versions of Majee for IPv4 and IPv6 support in the system of Primak, Jindal and Sakurai. One of ordinary skill in the art would have been motivated to modify the system of Primak, Jindal and Sakurai with the dual versions of Majee for IPv4 and IPv6 support because in doing so, the system would

allow for applications to communicate with both IPv4 and IPv6 hosts [Majee: Page 4 Section 4].

Regarding claim 4, Primak, Jindal, Sakurai and Majee teach *that said addresses containing address data representing addresses of equipment that offer a service and service data representing the service offered* [Sakurai: Claim 10] *and said address data is stored in corresponding relationship to said service data* [Primak: Paragraph 18 Lines 1-8].

Regarding claim 5, Primak, Jindal, Sakurai and Majee teach *that, if one of said communication equipment wishes to access a selected service, the address data representing the address of the equipment offering said selected service is determined in that communication equipment in order to set up a connection therewith* [Primak: Paragraph 20 Lines 1-8].

Regarding claim 6, Primak, Jindal, Sakurai and Majee teach *that said addresses containing said address data and said service data are broadcast in said network* [Primak: Paragraph 24 Lines 1-4].

Regarding claim 7, Primak, Jindal, Sakurai and Majee teach *that said addresses are broadcast in service messages* [Primak: "update event message... advertising... services", Paragraph 24 Lines 1-4].

14. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Primak and Jindal as applied to claims 1 and 9 above further in view of Majee.

Regarding claim 8, Primak and Jindal do not explicitly disclose *that in the presence of two equipment offering the same service in accordance with different network layer protocol versions, one of the two equipment is selected as a function if its protocol version, after which a packet is generated and sent to said selected equipment in the format of the selected version having a header containing at least the address data representing the destination address of the selected equipment.*

However, Majee teaches that "the client should fall back to IPv4 (Internet Protocol version 4) in the event it fails to communicate with the remote server using IPv6 (Internet Protocol version 6)" [Majee: Page 4 Section 4]. Further, both IPv4 and IPv6 are known to include a destination address field.

Primak, Jindal and Majee are analogous art in the same field of endeavor as all cover network access of services.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to utilize the fall back mechanism of Majee for selection of IP versions in the system of Primak and Jindal. One of ordinary skill in the art would have been motivated to modify the system of Primak and Jindal with the fall back mechanism of Majee for selection of IP versions because in doing so, the system would allow for

applications to be ignorant of the types of host with which they communicate [Majee: Page 4 Section 4].

Regarding claim 10, the claim comprises the limitations of claims 9 and 8. The same rationale for rejection is applicable.

15. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Primak, Jindal and Sakurai as applied to claim 13 above further in view of R. Hinden et al (*IP Version 6 Addressing Architecture*, hereafter Hinden).

Regarding claim 14, Primak, Jindal and Sakurai do not explicitly disclose that

in the presence of an IPv6 type protocol format, said sender means are adapted to place said address data and said service data in the last 64 bits of the 128 bits of the IPv6 format address field, the first 64 bits of said 128 bits being dedicated to identifying the network portion and to the route for contacting said service equipment whose address is defined in the last 64 bits.

However, Hinden discloses that the IPv6 addresses are arranged such that the first 64 (128-64) bits identify the network or subnetwork [Hinden: "subnet prefix", Page 8 Diagram 1 Section 2.5] while the later 64 bits identify the network equipment [Hinden: "interface ID", Page 8 Paragraph 4 Section 2.5.1]. Primak teaches that the addresses are IP addresses [Primak: Paragraph 18 Line 7], which adhere to the IP address format.

Primak, Jindal, Sakurai and Hinden are analogous art in the same field of endeavor as all cover transmission on IP networks.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to utilize the IPv6 address format of Hinden for formatting IP addresses in the system of Primak, Jindal and Sakurai. One of ordinary skill in the art would have been motivated to modify the system of Primak, Jindal and Sakurai with the IPv6 address format of Hinden for formatting IP addresses because in doing so, the system would follow the Internet Official Protocol Standards [Hinden: Page 1].

Conclusion

16. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of Applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from Applicant in preparing responses to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the text of the passage taught by the prior art or disclosed by the examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IMAD HUSSAIN whose telephone number is (571) 270-3628. The examiner can normally be reached on Monday through Friday from 0800 to 1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/IH/
Imad Hussain
Examiner

/Salad Abdullahi/
Primary Examiner, Art Unit 2157